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Bahama I. p. 219 (1880); *ib.* Bds. Haiti & San Domingo, p. 184 (1885).

Procellaria obscura BRYANT, Pr. Bost. Soc. Nat. Hist. XI, p. 98 (1867) (San Domingo).

Puffinus auduboni FINSCH, P. Z. S. 1872, p. 111 (Bahamas).—GUNDL. J. f. O. 1881, p. 400 (Cuba).—CORY, List Bds. W. I. p. 34 (1885).

SP. CHAR.—Above glossy brown, shading into grayish upon the sides of the breast; below white; crissum brown and white; tail brown, the feathers faintly tipped with ashy; bill lead-color.

Length, 12.50; wing, 8.00; tail, 4.25; tarsus, 1.60; bill, 1.30.

HABITAT. Bahamas and Greater Antilles.

(*To be concluded.*)

DESCRIPTIONS OF SUPPOSED NEW BIRDS FROM LOWER CALIFORNIA, SONORA, AND CHIHUA- HUA, MEXICO, AND THE BAHAMAS.

BY WILLIAM BREWSTER.

DURING the past year I have received a large number of birds from Mexico, representing three distinct collections, one made by Mr. M. Abbott Frazar in Lower California between January 24 and December 31, 1887; another by Mr. J. C. Cahoon in the eastern central part of Sonora between January 31 and June 18, 1887; and the third by Mr. R. R. McLeod in the extreme western portions of Chihuahua during the years 1883, 1884 and 1885. The last, although comprising only about two hundred skins, has proved particularly rich in new and little known birds.

Full lists of the species taken or observed by each of these collectors, with such field notes as they have placed in my hands, will be prepared and published as soon as possible, the present paper being restricted to the supposed new species or subspecies. In determining these I have received invaluable aid from Mr. Ridgway who has been at much personal trouble in examining and reporting on the numerous specimens which I have submitted to him, and through whose kind offices I have been able to compare nearly all of the new birds with series, often including the types, of their nearest allies from the collection of the National Museum.

In my descriptions the names of colors have been determined,

in nearly all cases, by careful comparison with the plates in Mr. Ridgway's 'Nomenclature of Colors.' My measurements are in English inches and hundredths. I measure the wing with dividers from the bend to the tip of the longest primary, thus taking the chord, not the curve, of the wing. I measure the tail from the extremity of the oil glands to the end of the longest rectrix.

Ardea virescens frazari,* new subspecies.—FRAZAR'S GREEN HERON.

SUBSP. CHAR.—Similar to *A. virescens* but rather larger, the general coloring darker, duller, and more uniform; the neck more purplish, its sides as well as the forehead strongly glaucous; the light striping on the throat and fore neck more restricted.

♂ *ad.* (No. 14134, collection of W. Brewster, La Paz, Lower California, Feb. 7, 1887; M. Abbott Frazar). Top of head and occipital crest dark bottle-green, the forehead with a slight hoary or plumbeous cast; a narrow stripe of creamy buff, spotted rather thickly and coarsely with dull black, extending down the middle of the throat and fore neck; remainder of head and neck dark purplish maroon, tinged—most strongly on sides of neck—with hoary or glaucous; rest of upper parts nearly uniform dull green, varied, however, by a plumbeous tone on the primaries, a purplish brown tinge on the dorsal plumes, and a narrow rusty edging on both webs of most of the upper wing-coverts; edge of wing rusty white; lining of wing, under wing-coverts, and the lower parts generally, plain slate-gray. Wing, 7.04; tarsus, 2.22; culmen from feathers, 2.52.

A second specimen (♂ *ad.* La Paz, Feb. 14, 1887) is precisely similar in coloring to the bird just described. It measures, wing, 7.37; tarsus, 2.28; culmen from feathers, 2.50.

Habitat. Near La Paz, Lower California.

Although the points of difference between this bird and true *A. virescens* are not easily expressed, they are nevertheless apparent on the most casual comparison, or, indeed, without any comparison whatever. The deeper, more purplish maroon of the neck with its decided glaucous tinge, is perhaps the best character of the new form. None of the specimens in the National Museum from the west coast of Mexico show any approach to *frazari*, all being apparently true *virescens*.

Ardea bahamensis, new species.—BAHAMA GREEN HERON.

SP. CHAR.—Smaller than *A. virescens*; the general coloring much paler, browner, or yellower, and more uniform; the forehead strongly tinged with brownish; the light edging of the secondaries broader; the dorsal plumes and rump only slightly, sometimes not at all, greenish.

♂ *ad.* (No. 108,819, collection Nat. Mus., Watling's Island, Bahamas,

*To M. Abbott Frazar of Watertown, Mass.

March 8, 1886). Top of head dark, dull green strongly tinged with brownish on the forehead; throat, jugulum and fore neck creamy white with dusky spotting on the jugulum; remainder of head and neck light chestnut, approaching cinnamon in places; fore part and sides of back rusty cinnamon; rump and most of upper tail-coverts drab; dorsal plumes dull greenish, the central ones glaucous with a tinge of lilac; wings and tail dull green, the wing-coverts edged broadly on both webs, the secondaries more narrowly on the outer webs only, with rusty or whitish; under wing-coverts, breast, abdomen, crissum and sides of body light yellowish drab.

♀ ad. (No. 108,814, collection Nat. Mus., Rum Cay, Bahamas, March 2, 1886). Similar to the ♂ just described, but with the dorsal plumes duller, browner, and more strongly tinged with lilac.

A third specimen without sex mark (No. 108,645, collection Nat. Mus., Abaco, Bahamas, April 3, 1886), differs from both of those just mentioned in having the sides of head and neck as well as the fore back yellowish rusty or cinnamon rusty with scarcely a tinge of chestnut; the dorsal plumes brownish glaucous rather strongly glossed with lilac and without apparent greenish; and the wing-coverts very broadly edged with brownish white.

Measurements, extremes of six specimens: Wing, 6.15-6.50; tarsus, 1.75-2.08; bill (culmen from feathers), 2.09-2.54.

Habitat. Bahamas (Rum Cay, Watling's Island, Abaco).

All of the eight specimens of this Heron which I have examined are distinguishable at a glance from *A. virescens* by their decidedly paler, browner and more uniform coloring. The difference is hardly of a kind or degree that would warrant the separation of the new form as a full species, were it not for its island habitat which, of course, renders intergradation with *A. virescens* improbable. The latter, curiously enough, seems to be generally distributed throughout the remainder of the West Indies, for, in the rather large West Indian series in Mr. Cory's collection and that of the National Museum, I do not find any birds that differ appreciably from *virescens*, excepting possibly in size, the West Indian skins averaging considerably smaller than those from the United States at large, although they are not apparently smaller than those from Florida.

Hæmatopus frazari,* new species.—FRAZAR'S OYSTER CATCHER.

SP. CHAR.—Differing from *H. palliatus* in having a stouter, more depressed bill, little or no white on the eyelids, the back, scapulars, and wing-coverts richer and deeper brown, the primaries and tail-feathers darker, the upper tail-coverts more or less varied with brown and white,

* To M. Abbott Frazar of Watertown, Mass.

the lateral under tail-coverts marked with brown, the bend of the wing and greater under primary coverts mottled with black and white; from *H. galapagensis* in the rather shorter bill and distinctly brown (instead of sooty black) back, scapulars, and wing-coverts, dark markings on the under tail-coverts, and greater amount of white on the under primary coverts; from both *palliatus* and *galapagensis* in the broad zone of mottled black and white feathers extending across the breast.

♂ ad. (No. 14135, collection of W. Brewster, Carmen Island, Gulf of California, March 6, 1887; M. Abbott Frazar). Entire head and neck black with a greenish gloss most pronounced on the jugulum and hind neck; back, scapulars, lesser and middle wing-coverts rich seal-brown; wing quills, and tail-feathers brownish black, very much darker than the back, the concealed bases of the secondaries and tail-feathers pure white; shorter upper tail-coverts concolor with the back, longer ones white with broad bars and spots of brown on their tips and inner webs; under tail-coverts white with large, irregular bars and spots of brown on their outer webs; black of throat and jugulum extending rather farther down over the breast than in either *H. palliatus* or *H. galapagensis*, and separated from the immaculate white of the lower breast, abdomen, anal region and sides by a broad zone of mottled black and white feathers; inner surface of primaries and greater under wing-coverts plain drab; middle under wing-coverts and contiguous exposed edge of wing mottled with dark brown and white, the brown prevailing; most of the remaining under wing-coverts and all the axillary feathers immaculate white; a trace of whitish at the bases of the feathers of the lower eyelids. Bill dull carmine; legs and feet flesh-color.*

Measurements, extremes of three specimens, all males: wing, 9.75-10.27; tail, 3.90-4.26; tarsus, 2.18-2.30; bill, length from nostril, 2.35-2.57; from feathers, 2.99-3.05; depth at angle, .49-.53.

Habitat. Pacific and Gulf Coasts of Lower California.

Although in several respects intermediate between *H. galapagensis* and *H. palliatus*, this Oyster Catcher seems to be specifically distinct from either. Mr. Frazar found it common and evidently preparing to breed on the sandy islands and shores of the Gulf to the northward of La Paz, but, mistaking it for *H. palliatus*, secured only three specimens. These present the characters above detailed, with almost perfect uniformity. A fourth example in the collection of the National Museum (Coronado Island, May 17, 1881, L. Belding) from the Pacific coast of the peninsula has a rather deeper bill and less white mottling on the breast. The latter difference, however, may be apparent rather than real, for the head is bent over on the back and the skin otherwise so distorted that it cannot be satisfactorily exam-

* In the dried specimen.

ined. It is a curious fact that in the National Museum collection true *H. palliatus* is represented from Isabella Island (west coast of Mexico), Tehuantepec, Peru, and Chili.

***Columba fasciata vioscæ*,* new subspecies.—VIOSCA'S PIGEON.**

SP. CHAR.—Similar to *C. fasciata* but with the tail band wanting or only faintly indicated, the general coloring lighter and more uniform, the vinaceous tints, especially on the head, neck and breast, much fainter and more or less replaced by bluish ash.

♂ *ad.* (No. 14138, collection of W. Brewster, La Laguna, Lower California, May 30, 1887; M. Abbott Frazar). Above bluish ash, deepest and purest on wing-coverts and rump, palest (nearly plain drab) on terminal half of tail, tinged slightly with olive brown on back and scapulars, and very faintly with vinaceous on the crown; a narrow half collar of white across upper hind neck, the remainder of the hind neck dull, metallic, bronzy green; primaries dark slaty brown; primaries, secondaries, and wing-coverts edged narrowly with white; basal half of tail uniform with rump, the terminal half drab (whitish on under side of the feathers), the two colors not separated by black as in *C. fasciata*, but merely shading rather abruptly into one another; under tail-coverts, crissum, and anal region white; abdomen whitish; flanks, sides, and under wing-coverts nearly concolor with the rump but a little lighter; remainder of underparts pinkish vinaceous with a strong tinge of glaucous; feet and basal two thirds of bill dull yellow, the terminal third of the bill black. Wing, 8.69; tail, 5.36; tarsus, 1.15; bill from feathers, .66.

♀ *ad.* (No. 14139, collection of W. Brewster, La Laguna, Lower California, May 31, 1887; M. Abbott Frazar). Smaller than the ♂, and slightly duller, the top of head browner. Wing, 8.00; tail, 5.47; tarsus, 1.07; bill from feathers, .69.

Habitat. Lower California.

The characters above proposed are shown by the large series (over one hundred specimens) before me to be sufficiently well marked and constant to entitle the Lower California bird to sub-specific separation. Its general coloring is much paler and more uniform than that of true *fasciata*, the crown being faintly instead of strongly tinged with vinaceous, the underparts glaucous, instead of purplish, vinaceous, the back much ashier and less brownish. As a rule the tail-band is either wholly lacking or only faintly indicated, but a very few specimens have it distinctly marked. In *fasciata*, as far as I have observed, it is always present. Thirteen specimens of *fasciata* before me from various parts of the United States and the mainland of Mexico show only a

* To Mr. Viosca, United States Consul at La Paz, Lower California.

trifling variation in coloring. The lightest bird among them is darker than my darkest example of *C. f. vioscæ*.

At Mr. Frazar's request I have named this bird after Mr. Viosca, the U. S. Consul at La Paz, who has been most kind and helpful in furthering the success of Mr. Frazar's explorations.

***Megascops aspersus*,* new species.—SPOTTED SCREECH OWL.**

SP. CHAR.—Sides of head conspicuously fringed with black bristles, longest on auriculars and superciliary ruffs; tarsi densely feathered on all sides to the toes, the latter sparsely feathered above; throat and sides of neck pale rusty chestnut; remainder of plumage coarsely spotted and barred almost everywhere with dull black.

♀ *ad.* (No. 14125, collection of W. Brewster, El Carmen, Chihuahua, Mexico, May 6, 1884; R. R. McLeod). Sides of head from the lores to the auriculars both above and below the eye, but not including the 'ear-tufts,' with a fringe of fine, black, hair-like bristles formed by the elongation of the shafts and denuded terminal barbs of the feathers, these bristles longest on the auriculars and superciliary ruffs where they project half an inch or more. General coloring above dark brownish drab, below grayish white, the feathers of the top of head, hind neck, back, scapulars, wing coverts, and most of the underparts coarsely streaked longitudinally, and broadly barred transversely, with dull black; throat, tibiae, and a narrow space on the side of the neck, pale rusty chestnut barred with dark brown or dull black; anal region and lower half of tarsi immaculate; under tail-coverts with a few small spots of brown; forehead, lores, and anterior half of the auriculars finely barred with dark brown; under wing-coverts pinkish buff, a few of the feathers with fine dark streaks; rump nearly immaculate; tail crossed by about six narrow, rusty white bars fairly well defined on all the feathers excepting the central pair where they are only faintly indicated; scapulars with large, irregularly ovate, brownish white spots confined chiefly to the outer webs of the feathers; primaries and secondaries pale clove-brown, the primaries coarsely spotted or 'notched' on their outer webs with grayish, more or less rusty, white, these spots darker and duller on the inner three feathers; outer webs of secondaries similarly, but more obscurely spotted; inner webs of both primaries and secondaries with large buffy white spots separated from the shafts of all the feathers by a space of plain clove-brown, and on the primaries conspicuous only on the basal portion of each quill, although faintly indicated on its terminal half also. Length,† 7.50; extent,† 16.25; wing, 5.66; tail, 2.89; tarsus, 1.17; middle toe, .67; culmen from nostril, .40; greatest depth of bill, .41; length of longest feathers of ear tufts, 1.00.

Young in first plumage (♀ No. 14126, collection W. Brewster, El Carmen, Aug. 22, 1884; R. R. McLeod). General coloring paler than in the adult, the ground color above pinkish drab, that of the underparts muddy white, the coarse black streaks and 'bars' wanting, but most of the

* *Aspersus* = spotted.

† Collector's measurements from fresh specimen.

plumage barred finely and rather faintly with reddish brown; under wing and tail-coverts immaculate; rump, wings, and tail precisely as in the adult, and sides of head with similar but less long and abundant bristles.

Habitat. Province of Chihuahua, Mexico.

This species is probably related rather closely to *Scops barbarus* Scl., with which it agrees (judging by descriptions, for I have seen no specimens of *barbarus*) in general style of coloration as well as in the possession of the curious fringe of bristles on the sides of the head, but from which it differs in the rusty chestnut of the throat and neck, the more numerous and conspicuous blackish spots and bars, and the more extended feathering on the legs and feet.

Megascops vinaceus,* new species.—CHIHUAHUA SCREECH OWL.

SP. CHAR.—Most nearly like *M. cooperi*, but much smaller and lighter colored.

♀, *ad.* (No. 14124, collection of W. Brewster, Durasno, Chihuahua, Mexico, Dec. 2, 1884; R. R. McLeod). Above pinkish, in places rusty drab. all the feathers except the outer primaries vermiculated with dark brown, those of the forehead, crown, 'ear-tufts,' back, scapulars, and wing-coverts with rather narrow shaft streaks of blackish or clove-brown. Primaries, secondaries and tail-feathers barred with light wood-brown, the bars on the tail narrow and distinct excepting on a short space near the tips of the feathers where they are broken and confused, those of the wings broad, distinct on the outer webs of the primaries where they form a conspicuous light notching, but on the inner webs of these feathers, as well as on both webs of the secondaries, only dimly outlined; cheeks, throat and entire underparts ashy white tinged with pinkish buff, most of the feathers with fine, wavy transverse bars of dull brown, those of the breast, abdomen, and under tail-coverts with narrow, sharply outlined mesial streaks of dark clove-brown; sides of neck and middle of breast with coarser, broader spots of the same color; tibiae and tarsi tinged with rusty chestnut, and flecked with burnt umber. Under wing-coverts creamy buff with sparse flecks of brown. Wing, 5.85; tarsus, 1.25; tail, 3.04; middle toe, .70; bill, length from nostril, .47; depth at nostril, .43; longest feathers of ear-tufts, .96.

Habitat. Province of Chihuahua, Mexico.

Otophanes,† new genus.

GEN. CHAR. Bill long, narrow, slender, with tubular nostrils opening for ward and outward, not upward; the gape with long, stiff, naked bristles curving downward and inward, meeting and overlapping under the chin; tarsus naked, about equal to middle toe; tail long (only about .80 inch shorter than wing), and slightly rounded, (graduation about .25 inch); wing compar-

* *Vinaceus* = vinaceous, of a pinkish color.

† οὖς (ὠτός) ear; φάλω show.

atively short and rounded, the second and third quills equal and longest, the fourth slightly shorter, the first and fifth decidedly shorter than the fourth and equal. Plumage peculiarly soft and velvety; eyes bordered in front and above by semi-circlets of radiating feathers, the tips directed upward and outward forming distinct superciliary ruffs or shields which extend from the gape along the sides of the crown to the occiput where they terminate in tufts of elongated feathers, erectile in life and precisely similar in form and position to the 'ear tufts' of *Megascops*. The superciliary shields, also, are curiously Owl-like. The superciliary shields, as well as the feathers along the maxillary line and many of the auriculars, are tipped with a fringe of delicate, black, hair-like bristles of varying length, the longest extending about .30 inch beyond the ends of the feathers. Examined under a glass these bristles prove to be elongated shafts and terminal barbs lacking the barbules.

This remarkable genus is too strongly characterized to require comparison with either of its probably nearest allies, *Antrostomus* and *Phalænoptilus*. The type is:

Otophanes mcleodii,* new species.—EARED WHIPPOORWILL.

♀ *ad.* (No. 14123, collection of W. Brewster, Sierra Madre of Chi-huahua, Mexico, Dec. 6, 1884; R. R. McLeod). Jugulum and tips of the tail-feathers (excepting the central pair) white; throat and cheeks light raw umber; remainder of the plumage reddish brown, varying in shade from light vandyke to burnt umber; the feathers almost everywhere (excepting on the white areas) delicately vermiculated with dull brown or grayish; a broad tipping on the central feathers of the crown, the shoulders, wings, tail, a band across the breast, another across the abdomen, and some large, more or less regularly heart-shaped spots on the scapulars, burnt umber, deepest on the crown, shoulders and scapular spots, several of the latter approaching seal-brown; some of the feathers of the abdomen and wing-coverts spotted with brownish white; primaries and secondaries tipped (the former to some extent edged, also) with light vandyke brown and crossed with numerous, rather narrow, dull black bands; all the tail-feathers excepting the central pair tipped with white, more or less tinged with rusty; this white tipping broadest on the second and third pair (counting the feathers inward), slightly narrower on the first pair, narrowest and strongly rusty on the fourth pair; its width varying from .25 to .45 of an inch. The second and third pairs of feathers have the white bounded basally by brownish black, immaculate on the inner webs for a space about .75 of an inch deep, but on the outer webs variegated somewhat with rusty brown; below these dark spaces the feathers just mentioned are banded narrowly across both webs to their bases with dark brown; the first (outer) and fourth (next to inner) pairs of feathers are crossed by about ten narrow, well defined brownish black bands distributed at regular intervals from the white tips to their bases;

* To R. R. McLeod of Houlton, Maine.

the central pair of feathers are without trace of white; they are barred faintly and confusedly with dull reddish brown. Wing, 4.82; tail, 3.97; tarsus, .65; bill, length of culmen from feathers, .20; from nostril, .21; width at nostril, .15; longest feathers of ear-tufts, .80.

Habitat. Province of Chihuahua, Mexico.

The type of this curious new genus and species was the only specimen obtained by Mr. McLeod during his stay in Mexico. It was brought to him alive by a Mexican boy and kept in a cage for nearly two weeks. During this time it refused all food excepting such as was literally forced down its throat. It moved its ear-tufts precisely as an Owl does, erecting them when approached or startled by any sudden noise, allowing them to droop back on the crown when it thought itself alone and safe. The Mexicans called it by a name which means "road-stopper," but this, I believe, is a designation given by them to other members of the family Caprimulgidae without distinction of species. Unfortunately the precise place of capture is not recorded on the label, but judging by the analogy furnished by other labels in the collection it must have been either near Durasno or El Carmen, probably the former.

Empidonax cineritius,* new species.—ST. LUCAS FLYCATCHER.

SP. CHAR.—Most nearly like *E. difficilis* but with the general coloring much duller, the upperparts with scarcely a tinge of greenish, no decided yellow beneath, excepting on jugulum and abdomen; wing-bands brownish white.

♂ *ad.* (No. 14136, collection of W. Brewster, La Laguna, Lower California, May 12, 1887; M. Abbot Frazar). Sides of head and neck and entire upperparts plain hair-brown, darkest on wings and tail, with the faintest possible tinge of olive on crown and nape; wing-bands and outer edges of secondaries brownish white; jugulum, abdomen, and crissum pale, slightly brownish, straw-yellow; breast ecru-drab; throat a duller, slightly browner, shade of the same; lores and a poorly defined orbital ring brownish white; bend of wing and under wing-coverts straw-yellow. Wing, 2.64; tail, 2.40; tarsus, .68; bill from nostril, .36. Sexes similar. (Type of ♀ No. 14137, collection of W. Brewster, La Laguna, Lower California, April 27, 1887; M. Abbott Frazar).

That the Yellow-bellied Flycatcher of the extreme southern portion of the peninsula of Lower California is distinct from its representative *E. difficilis* of the mainland of western North America, is shown conclusively by a series of some twenty-five

* *Cineritius* = ashy.

spring and summer specimens collected by Mr. Frazar. Among these the differences just pointed out are represented with great uniformity. In almost any other group of birds they would be perhaps hardly sufficient to warrant more than a subspecific separation, but with our North American *Empidonaces* the characters which distinguish forms proved by their habits, eggs, etc. to be perfectly distinct species, are often so slight as to be of little diagnostic value in the absence of series of determined specimens for comparison. Accordingly as I have no proof that the Flycatcher described above actually intergrades with its near ally *E. difficilis*, it seems wisest to claim for it the rank of a full species. Its characters will be found, I think, more constant and easily available than those which distinguish *E. minimus* from *E. trailli* or, to use an illustration more to the point, *E. difficilis* from *E. flaviventris*. The true *difficilis*, by the way, occurs in Lower California in winter.

***Icterus wagleri castaneopectus*,* new subspecies.—CHESTNUT-BREASTED ORIOLE.**

SUBSP. CHAR.—Similar to *I. wagleri* but rather larger, the breast with a broad band of chestnut.

♂ *ad* (No. 14131, collection of W. Brewster, collector's number 638, Oposura, Sonora, Mexico, April 13, 1887; J. C. Cahoon). Head, neck, chest, back, scapulars, wings (excepting lesser and middle upper coverts and all the under coverts) and tail (with its upper and under coverts) deep, rather glossy, black; remainder of plumage, including the lesser and middle upper and all the under wing-coverts, rich brownish orange; black of throat and chest separated from orange of remaining underparts by a conspicuous band of chestnut, nearly half an inch wide on the centre of the breast, narrowing rapidly towards its extremities which are about opposite the shoulders. Length,† 9.00; extent,† 12.75; wing, 4.15; tail, 4.17; tarsus, 1.00; bill from nostril, .58. "Bill black, pale horn-color on sides of lower mandible at base."

Habitat. Mountain regions of Sonora and Chihuahua, Mexico.

I have before me eight examples of this Oriole, six taken in Chihuahua by Mr. McLeod, two in Sonora by Mr. Cahoon. Of these, seven present the characters above mentioned with al-

* *Castaneus* = chestnut; *pectus* = breast.

† Collector's measurement of fresh bird.

most perfect uniformity. The eighth has only a trace of the chestnut pectoral band, but its absence is probably due to the fact that the bird is either young or very immature, as is shown by the dull, faded appearance of the black portions of the plumage, by the paleness of the yellow of the underparts, and still more conclusively by the light edging on some of the tail-feathers. Among the fourteen specimens of *wagleri* examined, there is not one which has any approach to a chestnut band, although a few show traces of chestnut along the line of demarcation between the black and yellow of the underparts, thus indicating the probability of intergradation at points where the two forms meet. Typical *wagleri* is represented in the National Museum collection by specimens from Tepic, Guadalajara, Guanajuato and Coahuilla. Hence, its range extends nearly half around the habitat of *castaneopectus*. The latter is probably confined to the upper slopes and table lands of the Sierra Madre of Chihuahua and Sonora, where it is perhaps resident, for Mr. McLeod found it in Chihuahua late in December. Both forms may be confidently expected to occur as stragglers north of the Mexican boundary, *wagleri* along the Rio Grande, *castaneopectus* in the mountains of Southern Arizona.

Aimophila mcleodii,* new species.—MCLEOD'S SPARROW.

SP. CHAR.—Larger than *A. rufescens* but with the bill smaller (both shorter and slenderer); colors duller and more uniform; crown chestnut without trace of a median stripe; wings and tail nearly concolor with back.

♂ *ad.* (No. 14127, collection of W. Brewster, El Carmen, Chihuahua, Mexico, June 3, 1885; R. R. McLeod). Top of head dull chestnut, perfectly uniform on the crown, but with a few lighter colored feathers on the forehead near the base of the culmen; remainder of upperparts olive brown, tinged slightly with pale chestnut on the nape, interscapulars and wings, a few of the interscapulars with clove-brown shaft-streaks; wing-coverts and tertials tipped with drab; sides of head and neck plain hair-brown with a short, poorly defined post-ocular stripe of dull chestnut; entire lower parts light wood-brown, lightest—approaching brownish white—on the jugulum and abdomen, deepest—clayey—on the throat, flanks, and under tail-coverts; a distinct, broad, but short, blackish stripe on each side of the throat, bordered above by a axillary stripe of the same color as the throat; lores dusky, bordered above by a brownish white stripe which starts at the nostril, and just above the eye is lost in the darker (hair-brown) color of the sides of the head; bend of wing and

* To R. R. McLeod of Houlton, Maine.

under wing-coverts whitish. Wing, 3.00; tail, 3.40; tarsus, .90; culmen from nostril, .42; depth of bill at nostril, .33.

♀ *ad.* (No. 14128, collection of W. Brewster, El Carmen, Nov. 10, 1884; R. R. McLeod). Much smaller than the male, the stripes on sides of throat duller and less conspicuous, the occiput and nape spotted with clove-brown. Wing, 2.55; tail, 2.75; tarsus, .88; culmen from nostril, .40; depth of bill at nostril, 32.

Aimophila cahooni,* new species.—CAHOON'S SPARROW.

SP. CHAR.—Of about the size and proportions of *A. mcleodii* but decidedly paler and grayer, the general coloring not unlike that of *A. sumichrasti*; the central feathers on top of head, especially on the forehead and occiput, tipped with ashy, which tends to form a median crown stripe; throat and central portion of abdomen nearly pure white, in contrast with the remainder of the underparts.

♂ *ad.* (No. 14129, collection of W. Brewster, collector's number 1074, near Oposura, Sonora, Mexico, June 2, 1887; J. C. Cahoon). Top of head pale chestnut, the feathers of the middle portion with light tips and edges; sides of head and neck, breast, and sides of body, smoke-gray, deepening on the flanks and under tail-coverts to brocoli-brown; throat and abdomen soiled white, the throat with a short, broad blackish stripe on each side, bordered above by a whitish maxillary stripe; lores and auriculars dusky gray; eyelids and superciliary stripe anterior to the eye, nearly pure white; a short post-ocular stripe of dull chestnut; wing-coverts, nape, back, and rump grayish olive, the interscapulars, wing-coverts and feathers of the hind neck with reddish brown centres, some of them with clove-brown shaft-streaks also; wings and tail brownish drab, tinged with cinnamon on the outer webs of the secondaries and on both webs of the tail-feathers, the latter with the faintest possible indication of dark bars; wing-coverts and tertials edged and tipped with pale drab; bill bluish horn-color; legs and feet light brown. Length,† 7.50; extent,† 9.45; wing, 3.15; tail, 3.36; culmen from nostril, .40; depth of bill at nostril, .30.

♀ *ad.* (No. 14130, collection of W. Brewster, collector's number 1047, near Oposura, May 31, 1887; J. C. Cahoon). Smaller than the male and rather grayer; the dark stripes on sides of throat duller and less well defined; feathers of a wide space over the centre of the crown extending from the hind neck nearly to the forehead, broadly tipped with smoke-gray, this light space bordered on each side from the crown to the lower hind neck by a band of dark brown or blackish spots, the two bands nearly meeting at their posterior extremities. Length,† 7.25; extent,† 9.25; wing, 2.79; tail, 2.98; tarsus, .97; culmen from nostril, .43; depth of bill at nostril, .40.

Habitat. Mountains near Oposura, Sonora, Mexico.

* To J. C. Cahoon of Taunton, Mass.

† Collector's measurements of fresh specimen.

Mr. Cahoon collected fourteen specimens of this fine new *Aimophila*. Among these the chief variation is in respect to the extent of the ashy tipping on the top of the head and the black spotting on the head and back. Some birds have the greater part of the crown ashy, the chestnut being confined to two stripes, one on each side. Others show only a faint trace of light color on the crown, and this confined to the tips of a few of the central feathers, but nearly all have a distinct, if short, medial light stripe invading the forehead from the base of the bill. In still others there is more or less blackish on the forehead with a well defined stripe of black or blackish spots extending from the forehead along each side of the crown to beyond the occiput. Abundant and conspicuous black streaking on the interscapulars is sometimes associated with the presence of these black head-stripes, sometimes found without them. In a very few birds the chestnut post-ocular stripe is also spotted with black.

The three forms of *Aimophila* just considered form a graduated series of which *A. rufescens* is the smallest and most deeply colored, *A. cahooni* the palest and grayest, as well as, probably, the largest, *A. mcleodii* being in many respects intermediate between the two, although apparently most nearly related to *A. cahooni*. The latter seems to be colored somewhat like *A. sumichrasti* (of which I have seen only descriptions) but it is very much larger. The range of variation exhibited by my series of *A. cahooni* renders it not improbable that all four of the forms just mentioned will be found to intergrade at points where their respective habitats meet, but the characters which distinguish them are too well marked and the material available too scanty to warrant any present action based on such a hypothesis. I have accordingly presented both the new forms as full species.

Troglodytes cahooni,* new species.—CAHOON'S WREN.

SP. CHAR.—Most nearly allied to *T. brunneicollis* Scl., but rather smaller, the tail decidedly shorter, the general coloring, both above and beneath, very much paler and grayer, the bars on the flanks and abdomen faint or nearly obsolete.

♂ *ad.* (No. 14132, collection of W. Brewster, collector's number 1045, near Oposura, Sonora, Mexico, May 13, 1887; J. C. Cahoon). Above grayish brown, the rump, tail, and wings slightly reddish but not decidedly rusty;

* To J. C. Cahoon of Taunton, Mass.

the back barred faintly, the wings and tail more distinctly, with darker brown; abdomen, crissum, anal region, and under tail-coverts soiled white, faintly flecked with brown on the flanks and under tail-coverts; remainder of underparts pale wood-brown; sides of head and neck flecked with grayish brown on a wood-brown ground; a poorly defined, inconspicuous, light superciliary stripe. Upper mandible dark*; lower mandible and feet pale flesh-color.* Length,* 4.75; extent,* 6.40; wing, 1.92; tail, 1.40; tarsus, .66; bill from nostril, .37. Sexes alike; type of ♀ No. 14133, collection of W. Brewster, same date, place, and collector as the ♂.

Habitat. Mountains near Oposura, Sonora, Mexico.

In general color and markings this species closely resembles *T. a. parkmani*, from which it is easily distinguishable, however, by its very much shorter tail and more tawny coloring beneath. It is evidently most nearly allied to *T. brunneicollis*. Among the eight specimens collected by Mr. Cahoon there is some variation with respect to the color of the underparts, but the deepest colored bird is much paler beneath than any specimen that I have seen of *T. brunneicollis*. One example is peculiar in having the bars on the tail confused and indistinct. Another has the superciliary stripe fairly well defined.

FIFTH MEETING OF THE AMERICAN ORNITHOLOGISTS' UNION.

THE fifth meeting of the American Ornithologists' Union was held at the Museum of the Boston Society of Natural History, Boston, Mass., Oct. 11-13, 1887, the President in the chair. The meeting was attended by seventeen Active Members and twelve Associate Members. The report of the Secretary stated that the membership of the Union consisted of 46 Active Members, 25 Foreign Members, 70 Corresponding Members, and 143 Associate Members. The Union had lost by death during the year one of its founders and Councillors, Prof. Spencer F. Baird, —a loss irreparable to the Union, and one deeply felt throughout the scientific world. The date of the meeting for this year

* From collector's notes based on the fresh specimen.